



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,686	05/03/2007	Norbert Deutloff	B118.12-0029	9504
27367	7590	09/14/2010	EXAMINER	
WESTMAN CHAMPLIN & KELLY, P.A. SUITE 1400 900 SECOND AVENUE SOUTH MINNEAPOLIS, MN 55402			BOWES, STEPHEN M	
ART UNIT	PAPER NUMBER			
			3657	
MAIL DATE	DELIVERY MODE			
09/14/2010	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,686	Applicant(s) DEUTLOFF ET AL.
	Examiner STEPHEN BOWES	Art Unit 3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11 August 2010.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11,13-16,19,22,24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-11,13-16,19,22,24 and 25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 June 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date: _____
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on 6/21/2006. These drawings are acceptable.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-11, 13-15, 19, 22, 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold et al (US 5,180,038).

As per claim 1, Arnold et al discloses a setting device (Title) comprising a setting unit (Abstract; Fig. 1) featuring a remotely-operated drive (50), a telescopic device (8, 36; Col. 4, lines 3-8) movable axially in a housing (2) in a longitudinal axis of the setting unit, containing a hollow shaft (8) and a spindle shaft (Drive screw 36 and movable member 8 are rotably connected) connected to the hollow shaft in a manner that enables the hollow shaft to rotate and that enables the spindle shaft to advance and to actuate a brake cable (Drive screw 36 advances cable 20 and actuates (retracts) cable 20 by shifting movable member 8 forward and backward), a torque-transmitting connection (42a) between the remotely-operated drive and the hollow shaft which enables the hollow shaft to move axially relative to the remotely-operated drive, and an axial advancing support between the hollow shaft on the one side and the housing on the other side via at least one elastic element (30) stationary relative to the spindle shaft

Art Unit: 3657

and the brake cable and arranged in parallel in the direction of hollow shaft loaded axially by the advancing support and thereby axially deformable.

As per claim 2, Arnold et al discloses the setting device according to claim 1, comprising an electric motor (50) for the remotely-operated drive.

As per claim 3, Arnold et al discloses the setting device according to claim 1, comprising a transmission (Col. 3, line 65 – Col. 4, line 3) between the remotely-operated drive and the hollow shaft.

As per claim 4, Arnold et al discloses the setting device according to claim 3, comprising an intermediate gear wheel (58) between a drive gear element (54) of the remotely-operated drive and a drive gear wheel (62) of the hollow shaft, the intermediate gear wheel and the meshing drive gear wheel of the hollow shaft being enabled to move axially relative to each other at least to the extent of an operational stroke distance of the at least one elastic element (The gears are capable of sliding axially under sufficient loading, Fig. 1).

As per claim 5, Arnold et al discloses the setting device according to claim 1, wherein the at least one elastic element is used as a correspondingly axially moved force sensor emitter for its longitudinal deformation for the axial advancing force acting from the motorized drive via the hollow shaft on the spindle shaft (30).

As per claim 6, Arnold et al discloses the setting device according to claim 5, comprising a force sensor receiver (66; Col. 4, lines 3-8) which is stationary relative to the spindle shaft and the brake cable and assigned to the force sensor emitter.

As per claim 7, Arnold et al discloses the setting device according to claim 6, comprising an arrangement of the force sensor receiver as an integrated part of a control unit of the setting unit (2c; Col. 4, lines 3-8).

As per claim 8, Arnold et al discloses the setting device according to claim 7, wherein the control unit is arranged in the area of the telescopic device (Fig. 1; Col. 4, lines 3-8).

As per claim 9, Arnold et al discloses the setting device according to claim 1, wherein the at least one elastic element is embodied as a spring screw (30).

As per claim 10, Arnold et al discloses the setting device according to claim 9, wherein the at least one elastic element is arranged or embodied as a spring screw surrounding the hollow shaft concentric to the hollow shaft or the spindle shaft in its opposite direction of rotational advance (30).

As per claim 11, Arnold et al discloses the setting device according to claim 1, wherein the at least one elastic element is embodied as a compression spring element (30).

As per claim 13, Arnold et al discloses the setting device according to claim 5, wherein the at least one elastic element is used as a force sensor emitter for determining the brake application force of a motor vehicle parking brake (Col. 2, lines 44-51).

As per claim 14, Arnold et al discloses the setting device according to claim 5, wherein the at least one elastic element is used as a force sensor emitter for

Art Unit: 3657

determining the brake release force of a motor vehicle parking brake (Col. 2, lines 44-51).

As per claim 15, Arnold et al discloses the setting device according to claim 1, wherein a first elastic element (30) is loaded axially by advancing support for an axial advancing movement of the telescopic device, on application of a motor vehicle parking brake; and wherein a second elastic element (70) is loaded axially in the other axial direction of movement of the telescopic device by advancing support, on release of the motor vehicle parking brake.

As per claim 19, Arnold et al discloses the setting device according to claim 15, comprising an arrangement of the second elastic element axially before or after the first elastic element (70).

As per claim 22, Arnold et al discloses a motor vehicle parking brake (Title), comprising a drive unit (Fig. 1) featuring a remotely-operated drive (50), a telescopic device (8, 36; Col. 4, lines 3-8) movable axially in a housing (2) in a longitudinal axis of the setting unit, containing a hollow shaft (8) and a spindle shaft (Drive screw 36 and movable member 8 are rotably connected) connected to the hollow shaft in a manner that enables the hollow shaft to rotate and that enables the spindle shaft to advance and to actuate a brake cable (Drive screw 36 advances cable 20 and actuates (retracts) cable 20 by shifting movable member 8 forward and backward), a torque-transmitting connection (42a) between the remotely-operated drive and the hollow shaft which enables the hollow shaft to move axially relative to the remotely-operated drive, and an axially advancing support between the hollow shaft on the one side and the housing one

the other side via at least one elastic element (30) stationary relative to the spindle shaft and the brake cable during a drive into the release position of the brake of an axially loaded and thereby axially longitudinally deformable elastic element.

As per claim 24, Arnold et al discloses the setting device according to claim 6, wherein: the force sensor receiver is in the form of a Hall chip assigned to the magnetic force sensor emitter (66; Col. 4, lines 3-8).

As per claim 25, Arnold et al discloses the setting device according to claim 6, comprising: an arrangement of the force sensor receiver as an integrated part of a control unit of the setting unit, which is accommodated by a fixed circuit board (2c; Col. 4, lines 3-8).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al (US 5,180,038).

As per claim 16, Arnold et al discloses the setting device according to claim 15. Although Arnold et al illustrates helical clutch spring (70) as being significantly smaller than the main spring (30), they do not explicitly disclose a different elasticity constant of the first elastic element by comparison with the elasticity constant of the second elastic element. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to make the helical clutch spring a different elasticity constant than the main spring in order to optimally accommodate the significantly different loads exerted on them.

Response to Arguments

6. Applicant's arguments filed 8/11/2010 have been fully considered but they are not persuasive. Applicant's arguments regarding claims 1 and 22 are directed towards the amended claims. Regarding claim 16, applicant argues that Arnold et al fails to disclose "actuating a brake cable by a spindle shaft" or "providing a torque-transmitting connection between a hollow shaft and a remotely-operated drive, which would enable the hollow shaft to axially shift with respect to the drive" (Page 10). Applicant does not claim "actuating a brake cable by a spindle shaft" and movable member 8 is axially movable. There is a torque transmitting connection between the drive screw 36 and the movable member 8 in the form of nut 42 and the threaded portion 42a.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN BOWES whose telephone number is (571) 270-5787. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN BOWES/
Examiner, Art Unit 3657

/Robert A. Siconolfi/
Supervisory Patent Examiner, Art
Unit 3657